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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,785	03/04/2004	Kazumi Nagasawa	040894-7008	5198

9629 7590 07/17/2006
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EXAMINER

CRIBBS, MALCOLM D

ART UNIT	PAPER NUMBER
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2115

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/791,785	Applicant(s) NAGASAWA ET AL.	
	Examiner Malcolm D. Cribbs	Art Unit 2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/04/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-17 are presented for examination.

5 ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10 Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 12, as stated the auxiliary equipment module comprises a plurality
15 of components including a communication unit, a control unit, and a load driving unit. However, when compared to Page 11 lines 17-19 of the specs and Fig 1 it is believed the applicant's intentions were the connector connected to the auxiliary equipment module comprises a plurality of components therefore a suggestion for claim 12 is as follows:

20 An electronic connector having a plurality of components, connected to an auxiliary equipment module, and communicating a signal through a common bus, comprising.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

5 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10 Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants Admitted Prior Art [hereinafter referred to as AAPA] in view of Hashimoto et al [US Patent No. 6,902,433] [hereinafter referred to as Hashimoto].

As per claim 1, AAPA teaches the invention comprising:

15 an electronic connector connected to a sensor or a switch, and communicating a signal through a common bus:

an I/O unit, receiving a signal from the sensor or switch [Page 1 lines 8-15; Fig 10];

20 a control unit, generating a control signal for controlling the driving of a load corresponding to the sensor or the switch according to the signal received from the I/O unit [Page 1 lines 8-15; Fig. 10]; and

a communication unit [Page 1 lines 8-15; Fig. 10].

AAPA does not teach an electronic connector comprising an I/O unit, control unit,
25 and communication unit. Specifically, AAPA teaches a method of communicating between the sensor or switch with the load wherein the concern for access wires being

disregarded. However, AAPA fails to detail a method of reducing the wire while keeping a simple design. A routineer in the art would have been motivated to look for a teaching for the possible method of simple design while reducing the number of wires.

5 Hashimoto teaches another electronic connector that incorporates components on the connector to reduce lines for simple design. Hashimoto teaches an electronic connector that comprises an I/O unit, a control unit, and a communication unit while also being operable to encode and decode control signals [Col 5 lines 36-41; Col 4 lines 50-57; Fig 6 and 7]. In summary, Hashimoto teaches an electronic connector comprising
10 the components stated above instead of wasting space and using more wire.

It would have been obvious to one of ordinary skill in the art to combine the teachings of AAPA and Hashimoto, which are analogous art, because they both teach a method of designing an electronic connector. Hashimoto covers the deficiency of
15 AAPA by teaching the detail of simple design and reducing wires by integrating the I/O unit, control unit, and communication unit all with the connector.

As per claims 5-11, and 15, it is directed to a connector connected to a load to implement the same functions as set forth in claims 1-4 with exception of a load drive
20 and load which is taught by AAPA [Page 1 lines 14-15]. Therefore, it is rejected for the same basis as set forth hereinabove.

As per claims 12-14, and 16-17, it is directed to a connector connected to an auxiliary equipment module to implement the same functions as set forth in claims 5-11, and 15. Therefore, it is rejected for the same basis as set forth hereinabove.

5

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Malcolm D. Cribbs whose telephone number is 571-272-5689. The examiner can normally be reached on M-F 8AM-430PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Malcolm D Cribbs
Examiner
Art Unit 2115

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July 6, 2006



THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100